UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF TEXAS
WACO DIVISION

WSOU INVESTMENTS, LLC D/B/A
BRAZOS LICENSING AND DEVELOPMENT,

      Plaintiff,

  v.

HEWLETT PACKARD ENTERPRISE COMPANY,

      Defendant.

No. 6:20-cv-00728

JURY TRIAL DEMANDED

BRAZOS'S COMPLAINT AGAINST HPE FOR
INFRINGEMENT OF U.S. PATENT NO. 7,519,056

Plaintiff WSOU Investments, LLC d/b/a Brazos Licensing and Development ("Brazos"),

by and through its attorneys, files this Complaint for Patent Infringement against defendant

Hewlett Packard Enterprise Company ("HPE") and alleges:

NATURE OF THE ACTION

1.   This is a civil action for patent infringement arising under the Patent Laws of the

United States, 35 U.S.C. §§ 1 *et seq.*, including §§ 271, 281, 284, and 285.

THE PARTIES

2.   Brazos is a limited liability corporation organized and existing under the laws of

Delaware, with its principal place of business at 606 Austin Avenue, Suite 6, Waco, Texas

76701.

3.   On information and belief, HPE is a corporation organized and existing under the

laws of Delaware, with a regular and established place of business located at 14231 Tandem

Boulevard, Austin, Texas 78728. HPE may be served through its designated agent for service of

process, CT Corporation System, 1999 Bryan Street, Suite 900, Dallas, Texas, 75201.

JURISDICTION AND VENUE

4.   This Court has jurisdiction over the subject matter of this action under 28 U.S.C. §§ 1331 and 1338(a).

5.   This Court has specific and general personal jurisdiction over HPE pursuant to due process and/or the Texas Long Arm Statute because HPE has committed and continues to commit acts of patent infringement, including acts giving rise to this action, within the State of Texas and this Judicial District. The Court's exercise of jurisdiction over HPE would not offend traditional notions of fair play and substantial justice because HPE has established minimum contacts with the forum. For example, on information and belief, HPE has committed acts of infringement in this Judicial District, directly and/or through intermediaries, by, among other things, making, using, offering to sell, selling, and/or importing products and/or services that infringe the Asserted Patent, as alleged herein.

6.   Upon information and belief, HPE has continuous and systematic business contacts with the State of Texas. HPE is registered to do business in the State of Texas, has offices and facilities in the State of Texas, and actively directs its activities to customers located in the State of Texas. HPE, directly and/or through affiliates and/or intermediaries, conducts its business extensively throughout Texas, by shipping, importing, manufacturing, distributing, offering for sale, selling, and/or advertising its products and services in the State of Texas and this Judicial District.

7.   Venue is proper in this Court pursuant to 28 U.S.C. § 1400(b). HPE is registered to do business in Texas, and, upon information and belief, HPE has transacted business in this Judicial District, and has committed acts of direct and indirect infringement in this Judicial District by, among other things, importing, offering to sell, and selling products that infringe the

Asserted Patent. HPE has regular and established places of business in this Judicial District, as set forth below.

      8.   HPE maintains a regular and established place of business in this Judicial District, at least at 14231 Tandem Boulevard, Austin, Texas 78728:[1,2]
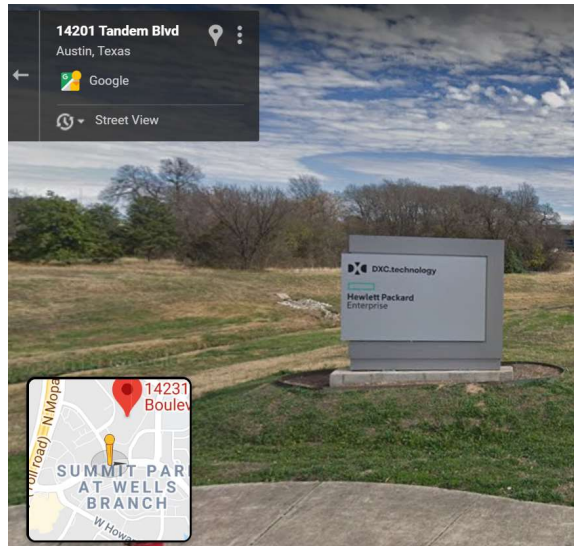
      9.   Upon information and belief, HPE conducts business and serves customers from its regular and established place of business in Austin, Texas, in this District. Upon information and belief, HPE's Austin office is located on a 52-acre campus.[3]

      10.   In October 2019, it was reported that HPE signed a lease for a 27,326-square-foot-space in a 164,714-square-foot office building in North Austin at Paloma Ridge, located at 13620 FM 620 Austin, Texas, 78717.[4]

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[1] *See* https://www.hpe.com/us/en/contact-hpe.html.

[2] *See* https://goo.gl/maps/mojArn1WxaHcHU8v8; *see also* https://goo.gl/maps/cBjm1De4gVPFMeam9.

[3] *See* https://www2.colliers.com/en/properties/austin-continuum/USA-14231-tandem-boulevard-austin-tx-78728/usa1046778.

[4] *See* https://communityimpact.com/local-news/austin/leander-cedar-park/coming-soon/2019/10/23/hewlett-packard-signs-lease-at-paloma-ridge-on-fm-620/.

11.   Upon information and belief, HPE owns at least two properties in Austin, Texas, in this District.[5]

12.   HPE maintains additional regular and established places of business in the State of Texas, nearby to this District, including at 11445 Compaq Center West Drive Houston, Texas, 77070, and 6080 Tennyson Parkway, Suite 400, Plano, Texas 75024.[6]

13.   HPE's website states that HPE is "a global edge-to-cloud Platform-as-a-Service company . . . that helps customers connect, protect, analyze, and act on all [of the customer's] data and applications wherever they live . . . ."[7] Upon information and belief, HPE designs, manufactures, uses, imports into the United States, sells, and/or offers for sale in the United States products that infringe the Asserted Patent, directly and or through intermediaries, as alleged herein. HPE markets, sells, and/or offers to sell its products and services, including those accused herein of infringement, to actual and potential customers and end-users located in Texas and in this District, as alleged herein.

14.   HPE's website permits customers to configure and customize HPE products, including the HPE FlexFabric 5945 Switch Series, and request prices quote from HPE on the configured products.[8] HPE's website also permits users to purchase HPE products directly from HPE's website.[9]

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[5] *See* http://propaccess.traviscad.org/clientdb/SearchResults.aspx (printout attached as Exhibit B).

[6] *See* https://www.hpe.com/us/en/contact-hpe.html.

[7] *See* https://www.hpe.com/us/en/about.html.

[8] *See, e.g.*, https://h22174.www2.hpe.com/SimplifiedConfig/Welcome (printout attached as Exhibit C).

[9] *See, e.g.*, https://buy.hpe.com/us/en/networking/networking-switches/c/c001013.

15.   Upon information and belief, HPE offers trainings and/or certifications to HPE partners, customers, and HPE employees including, *inter alia*, trainings and certifications regarding the sales and/or service of HPE products. For example, HPE offers an HPE Certification to HPE employees, customers, and partners that teaches how to "design, implement, and configure complex data center solutions based on the HPE FlexNetwork Architecture."[10]

16.   As of August 2020, HPE advertised at least fifteen public job postings for positions at HPE's Austin, Texas office.[11]

COUNT I
Infringement of U.S. Patent No. 7,519,056

17.   Brazos re-alleges and incorporates by reference the preceding paragraphs 1–16 of this Complaint.

18.   On April 14, 2009, the U.S. Patent & Trademark Office duly and legally issued U.S. Patent No. 7,519,056 (the "'056 Patent"), entitled "Managing Traffic in a Multiport Network Node Using Logical Ports." A true and correct copy of the '056 Patent is attached as Exhibit A to this Complaint.

19.   Brazos is the owner of all rights, title, and interest in and to the '056 Patent, including the right to assert all causes of action arising under the '056 Patent and the right to any remedies for the infringement of the '056 Patent.

20.   HPE makes, uses, sells, offers for sale, imports, and/or distributes in the United States, including within this Judicial District, routers and switches that support multiprotocol label switching ("MPLS") traffic management ("TE") functionality, MPLS layer-2 VPN

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[10] *See* https://certification-learning.hpe.com/TR/datacard/Course/00908176.

[11] *See* https://www.linkedin.com/jobs/search?keywords=Hewlett%20Packard%20Enterprise& location=Austin%2C%20Texas%2C%20United%20States (printout attached as Exhibit D).

("L2VPN") capability, and LDP pseudowire tunnels, including, but are not limited to, the HPE

FlexFabric 5945 Switch Series[12] (collectively, the "Accused Products").

21.   MPLS L2VPN provides point-to-point and point-to-multipoint connections.

MPLS L2VPN is an implementation of Pseudo Wire Emulation Edge-to-Edge (PWE3). It offers

Layer 2 VPN services over a MPLS or IP backbone. MPLS L2VPN can transparently transmit

Layer 2 data for different data link layer protocols such as Ethernet and ATM.[13]

22.   MPLS L2VPN network models include the remote connection and local

connection models. The remote connection model connects two CEs through a pseudowire (PW)

on an MPLS or IP backbone. A CE is a customer edge device directly connected to the service

provider network. A PE is a provider edge service provider device connected to one or more

CEs. It provides VPN access by mapping and forwarding packets between user networks and

public tunnels. An AC is an attachment circuit link between a CE and a PE. A PW is a virtual

bidirectional connection between two PEs. A public tunnel is a connection that carries one or

more PWs across the MPLS or IP backbone. It can be a LSP tunnel, a GRE tunnel, or an MPLS

TE tunnel.[14] *See* Figure A below.

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[12] *See* https://buy.hpe.com/us/en/networking/networking-switches/hpe-flexfabric-5945-switch-series/p/1010907030; *see also* https://support.hpe.com/hpesc/public/docDisplay?docId=a00047323enw.

[13] *See* https://support.hpe.com/hpesc/public/docDisplay?docId=a00098729en_us.

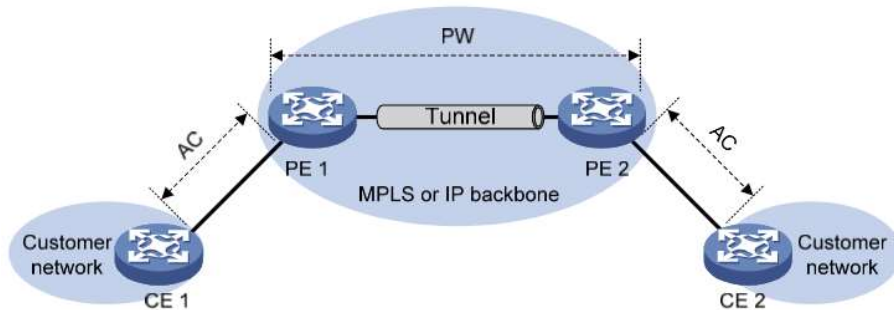[14] *See, e.g.*, https://support.hpe.com/hpesc/public/docDisplay?docId=a00098729en_us (MPLS L2VPN Network Models).

Figure A

23.   According to HPE, the Accused Products are "a family of high-density, ultra-low latency, and ToR ["top of rack"] switches . . . . Ideally suited for deployment at the aggregation or server access layer of large enterprise data centers, the HPE FlexFabric 5945 Switch Series is also powerful enough for deployment at the core layer of medium-sized enterprises. With the increase in virtualized applications and server-to-server traffic, customers require spine and ToR switches that can meet their throughput requirements. With the HPE FlexFabric 5945, data centers can now support up to 100 Gb per port, allowing high performance server connectivity and the capabilities to handle virtual environments."[15]

24.   The Accused Products provide for implementing VLANs across a service provider network that involves establishing logical ports that have bindings to transport tunnels. These logical ports are then treated the same as physical ports in defining broadcast domains at particular service provider edge devices. Logical ports can be established for layer-2 transport tunnels that use stacked VLAN tunneling and MPLS tunneling. Establishing a logical port that uses stacked VLAN tunneling involves binding a physical port and a stacked VLAN runnel to the logical port. In the Accused Products, the logical port is bound either to a static MPLS tunnel or a dynamic MPLS tunnel and the destination IP address of the destination service provider edge device.

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[15] *See* https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-a00053252en_us.

25.   The Accused Products practice a method for managing traffic in a network node that includes multiple physical ports comprising: establishing a logical port within a network node that includes a binding to a tunnel; treating the logical port the same as the physical ports of the network node in the forwarding of traffic through the network node; wherein establishing said logical port includes binding said logical port to a multi-protocol label switched (MPLS) tunnel and a destination IP address and wherein the dynamic MPLS tunnel is an MPLS tunnel that does not specify a particular label switch path (LSP) that is to be used to reach a target destination and wherein the LSP that corresponds to the MPLS tunnel is dynamically determined by a label distribution protocol (LDP); and, wherein said logical port includes a binding to a virtual circuit (VC) identifier (ID) that is to be used for a VC label in a layer 2 MPLS label stack.

26.   Each of the Accused Products support MPLS traffic management capabilities. For example, the HPE FlexFabric 5945 Switch Series enables scaling of the server edge, with 100GbE, 40GbE. 25GbE, and 10GbE spine and leaf deployment. The HPE FlexFabric 5945 Switch Series solution includes a 48-port of 25 Gb with 8-port of 50 Gb, 32-port of 100 Gb and 2 modular models of respectively 1RU / 2-slot and 2RU / 4-slot.[16]

27.   The Accused Products establish a logical port within a network node that includes binding to a tunnel. For the Accused Products, setting up a remote MPLS L2VPN connection first requires a public tunnel to be bound to a logical port within the network device to carry one or more pseudowires between PE devices. The public tunnel can be a MPLS TE tunnel.[17]

28.   The Accused Products treat the logical port the same as the physical ports of the network node in the forward of traffic through the network node. On information and belief, all

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[16] *See* https://support.hpe.com/hpesc/public/docDisplay?docId=a00047323enw.

[17] *See, e.g.*, https://support.hpe.com/hpesc/public/docDisplay?docId=a00098729en_us.

HPE switches and routers require a logical interface be configured for each physical interface on that device.

29.   The Accused Products bind said logical port to a MPLS tunnel and a destination address. On information and belief, L2VPN is enabled on an HPE router or switch by first enabling MPLS on the core facing interface of the PE via the MPLS enable command and L2VPN capability is enabled by the 12VPN command.[18]

30.   The Accused Products practice a method wherein the dynamic MPLS tunnel is an MPLS tunnel that does not specify a particular label-switched path (LSP) that is to be used to reach a target destination because LDP-signaled LSPs are not traffic engineered LSPs that specify a particular path used to reach a target destination using RSVP. The Label Distribution Protocol dynamically distributes FEC-label mapping information between label-switching routers (LSRs) to establish LSPs.[19]

31.   The Accused Products practice a method wherein the LSP that corresponds to the MPLS tunnel is dynamically determined by a label distribution protocol (LDP), also called a MPLS signaling protocol. A label distribution protocol classifies FECs ("forwarding equivalence classes," which are classes of MPLS grouped packets with the same characteristics), distributes FEC-label mappings, and establishes and maintains LSPs.[20] The MPLS tunnel is dynamically determined using LDP when global and interface MPLS LDP is enabled on the PE device. LDP classifies FECs according to destination IP addresses in IP routing entries, creates FEC-label mappings, and advertises the mappings to LDP peers through LDP sessions.[21] After a LDP peer

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[18] *See*, *e.g.*, https://support.hpe.com/hpesc/public/docDisplay?docId=a00098729en_us.

[19] *See*, *e.g.*, https://support.hpe.com/hpesc/public/docDisplay?docId=a00098729en_us.

[20] *See*, *e.g.*, https://support.hpe.com/hpesc/public/docDisplay?docId=a00098729en_us at 3.

[21] *See*, *e.g.*, https://support.hpe.com/hpesc/public/docDisplay?docId=a00098729en_us at 16–18.

receives an FEC-label mapping, it uses the received label and the label locally assigned to that

FEC to create a LFIB (a table used by the router to forward labelled packets going through the

network).[22] When all LSRs (from the ingress to the egress) establish a LFIB entry for the FEC, a

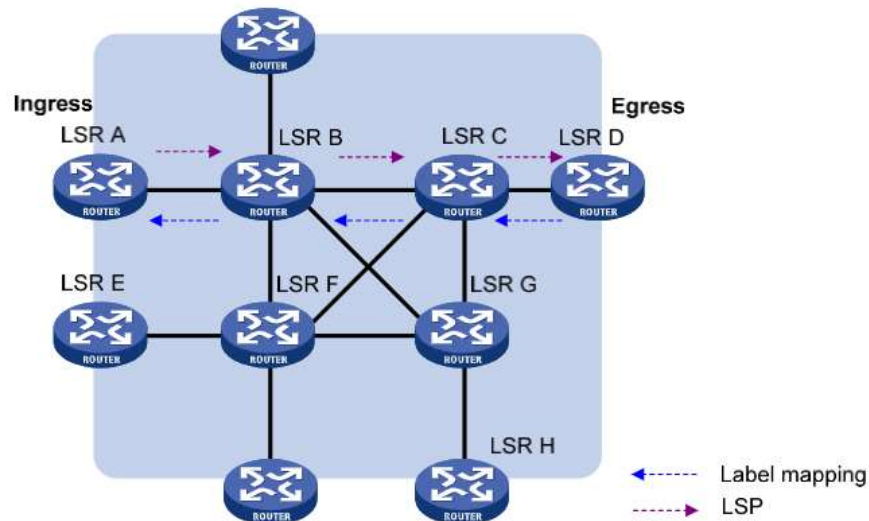LSP is established exclusively for the FEC.[23] *See* Figure B below.[24]

Figure B

32.   The Accused Products practice a method wherein said logical port includes a

binding to a virtual circuit (VC) identifier (ID) that is to be used for a VC label in a layer 2

MPLS label stack. An attachment circuit[25] is a link between a CE and a PE. As such, it functions

as an Ethernet service instance on a Layer 2 Ethernet interface or Layer 2 aggregate interface. It

forwards packets that are received on the interface and meet the match criteria of the Ethernet

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[22] *Id.*

[23] *Id.*

[24] *Id.*

[25] RFC 4364 specifies an "attachment circuit" is used to refer generally to a means of attaching routers to each other, either using PPP connections, ATM virtual circuits, frame relay virtual circuits, ethernet interfaces, GRE tunnels, Layer 2 Tunneling Protocol (L2TP) tunnels, IPSec tunnels, etc. *See, e.g.*, https://tools.ietf.org/html/rfc4364 (BGP/MPLS IP Virtual Private Networks (VPNs)). HPE switches and routers comply with RFC 4364. *See, e.g.*, https://support.hpe.com/hpesc/public/docDisplay?docId=c03289379.

interface to the bound pseudowire.[26] The attachment circuit is bound to the pseudowire over the

logical port in the final stage of the remote connection establishment of the MPLS L2VPN

connection.[27]

33.   A label is encapsulated between the Layer 2 header and the Layer 3 header of a

packet. It is four bytes long and consists of the following fields:

- Label: 20-bit label value;

- TC: 3-bit traffic class, used for QoS (also called Exp);

- S: 1-bit bottom of stack flag (A label stack can contain multiple labels. The label nearest to the Layer 2 header is called the top label, and the label nearest to the Layer 3 header is called the bottom label. The S field is set to 1 if the label is the bottom label and set to 0 if not.); and

- TTL :8-bit time to live field used for MPLS loop prevention.

A Layer 2 circuit is a point-to-point Layer 2 connection transported using MPLS or other

tunneling technology on the service provider's network. On information and belief the Accused

Products' implementation of Layer 2 circuits supports the remote form of a Layer 2 circuit. That

is, a connection from a local customer edge (CE) router to a remote CE router. On information

and belief, to establish a Layer 2 circuit, LDP is used as the signaling protocol to advertise the

ingress label to the remote PE routers. Each Layer 2 circuit is represented by the logical interface

connecting the local PE router to the local customer edge (CE) router. On information and belief,

a virtual circuit ID is configured on each logical interface. On information and belief, each

virtual circuit ID is used for a VC label and uniquely identifies the Layer 2 circuit among all the

Layer 2 circuits to a specific neighbor.

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[26] *See, e.g.,* https://support.hpe.com/hpesc/public/docDisplay?docId=a00098729en_us at 42.

[27] *See e.g.,* https://support.hpe.com/hpesc/public/docDisplay?docId=a00098729en_us at 441.

34.   In view of preceding paragraphs 21–33, each and every element of at least

claim 21 of the '056 Patent is found in the Accused Products.

35.   HPE continues to directly infringe at least one claim of the '056 Patent, literally

or under the doctrine of equivalents, by making, using, selling, offering for sale, importing,

and/or distributing the Accused Products in the United States, including within this Judicial

District, without the authority of Brazos. HPE's infringing use of the Accused Products includes

its internal use and testing of the Accused Products.

36.   HPE has received notice and actual or constructive knowledge of the '056 Patent

since at least the date of service of this Complaint.

37.   Since at least the date of service of this Complaint, through its actions, HPE has

actively induced product makers, distributors, retailers, and/or end users of the Accused Products

to infringe the '056 Patent throughout the United States, including within this Judicial District,

by, among other things, advertising and promoting the use of the Accused Products in various

websites, including providing and disseminating product descriptions, operating manuals, and

other instructions on how to implement and configure the Accused Products. Examples of such

advertising, promoting, and/or instructing include the documents at:

- https://support.hpe.com/hpesc/public/km/search#q=MPLS;

- https://h20195.www2.hpe.com/v2/Getdocument.aspx?docname=a00049249enw; and

- https://support.hpe.com/hpesc/public/docDisplay?docId=a00053252en_us.

HPE was and is aware that the normal and customary use by end users of the Accused Products

infringes the '056 patent. HPE's inducement is ongoing.

38.   Since at least the date of service of this Complaint, through its actions, HPE has

contributed to the infringement of the '056 Patent by having others sell, offer for sale, or use the

Accused Products throughout the United States, including within this Judicial District, with

knowledge that the Accused Products infringe the '056 Patent. The Accused Products have special features that are especially made or adapted for infringing the '056 Patent and have no substantial non-infringing use. For example, in view of the preceding paragraphs, the Accused Products contain functionality which is material to at least claim 21 of the '056 Patent.

39.   The special features includes implementing MPLS L2VPN and LDP pseudowire tunnels, which are used in a manner that infringes the '056 Patent.

40.   The special features constitute a material part of the invention of one or more claims of the '056 Patent and are not staple articles of commerce suitable for substantial non-infringing uses.

41.   Brazos has suffered damages as a result of HPE's direct and indirect infringement of the '056 Patent in an amount adequate to compensate for HPE's infringement, but in no event less than a reasonable royalty for the use made of the invention by HPE, together with interest and costs as fixed by the Court.

JURY DEMAND

Brazos hereby demands a jury on all issues so triable.

PRAYER FOR RELIEF

WHEREFORE, Brazos respectfully requests that the Court:

(a)   enter judgment that HPE infringes one or more claims of the '056 Patent literally and/or under the doctrine of equivalents;

(b)   enter judgment that HPE has inducted infringement and continues to induce infringement of one or more claims of the '056 Patent;

(c)   enter judgment that HPE has contributed to and continues to contribute to the infringement of one or more claims of the '056 Patent;

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(d)   award Brazos damages, to be paid by HPE in an amount adequate to compensate

Brazos for such damages, together with pre-judgment and post-judgment interest for the

infringement by HPE of the '056 Patent through the date such judgment is entered in accordance

with 35 U.S.C. § 284, and increase such award by up to three times the amount found or assessed

in accordance with 35 U.S.C. § 284;

(e)   declare this case exceptional pursuant to 35 U.S.C. § 285; and

(f)   award Brazos its costs, disbursements, attorneys' fees, and such further and

additional relief as is deemed appropriate by this Court.

Respectfully submitted,

Dated: August 12, 2020

Edward J. Naughton
(*pro hac vice* to be filed)
enaughton@brownrudnick.com
Rebecca MacDowell Lecaroz
(*pro hac vice* to be filed)
rlecaroz@brownrudnick.com
BROWN RUDNICK LLP
One Financial Center
Boston, Massachusetts 02111
telephone: (617) 856-8200
facsimile: (617) 856-8201

Alessandra C. Messing
(*pro hac vice* to be filed)
amessing@brownrudnick.com
Timothy J. Rousseau
(*pro hac vice* to be filed)
trousseau@brownrudnick.com
Yarelyn Mena
(*pro hac vice* to be filed)
ymena@brownrudnick.com
BROWN RUDNICK LLP
7 Times Square
New York, New York 10036
telephone: (212) 209-4800
facsimile: (212) 209-4801

Sarah G. Hartman
(*pro hac vice* to be filed)
shartman@brownrudnick.com
BROWN RUDNICK LLP
2211 Michelson Drive, 7th Floor
Irvine, California 92612
telephone: (949) 752-7100
facsimile: (949) 252-1514

/s/ Raymond W. Mort, III
Raymond W. Mort, III
Texas State Bar No. 00791308
raymort@austinlaw.com
THE MORT LAW FIRM, PLLC
100 Congress Avenue, Suite 2000
Austin, Texas 78701
Tel/Fax: 512-865-7950

Counsel for Plaintiff
WSOU Investments, LLC d/b/a
Brazos Licensing and Development

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